

Summary

Probiotics have been extensively studied and explored commercially in many different products in the world. Recent studies have suggested that probiotics have demonstrated beneficial effects to human and animal health. Much of the clinical probiotic research has been aimed at infantile, antibiotic-related and traveller's diarrhoea. The non-pathogenic organisms used as probiotics consist of a wide variety of species and subspecies, and the ability to adhere, colonise and modulate the human gastrointestinal system is not a universal property. *Lactobacillus* and *Bifidobacterium* are the main probiotic groups; however, there are reports on the probiotic potential of yeasts. Some of the identified probiotic strains exhibit anti-inflammatory, anti-allergic and other important properties. Besides, the consumption of dairy and non-dairy products stimulates the immunity in different ways.

Prebiotics, particularly oligosaccharides, apparently can be used alone to modify the intestinal flora, particularly in the large intestine. Since prebiotics tend to enhance growth of *Bifidobacterium* species in the intestine, a product containing a prebiotic and a selected strain of *Bifidobacterium* species could enhance beneficial effects for the host. This might improve the control of intestinal pathogens or bacteria that create malodors in livestock waste.